



Natural Filters 2 Year Milestone  
Implementation Strategy Overview  
Maryland Department of the Environment  
November 23, 2009

## Top 5 Practices for Nitrogen Reduction

	Practice	Ibs Reduced	Cost
1.	Cover Crops	1.37 M	\$41.6 M
2.	Waste Water	740,000	\$80 M (BRF Funding)
3.	CREP - Private Natural Filters	242,874	\$9 M
4.	Blue Plains	190,000	\$23 M
5.	Public Land Natural Filters	125,192	\$6 M

- Key Components (2009-2011)
  - 6,100 acres on Public Lands
    - Combination of Forest and Grass Buffers, Retirement of HEL and Wetlands (\*Forest Brigade)
- Public Lands Goal – 125,192 lbs N / 8,245 lbs P

Practice	Unit	Unit Costs			Nitrogen Reduction
		Capital	Annual O&M	Lifespan	Rate
					lb/ac/yr
Agricultural BMP's					
Soil Conservation & WQ plans	acres	\$280	\$0	10	0.93
Cover Crops	acres	\$0	\$40	1	9.48
Small Grain Commodity	acres	\$0	\$20	1	6.31
Alternative Crops	acres	\$0	\$25	1	12.48
AWMS - Livestock	systems	\$63,533	\$2,541	15	531
AWMS - Poultry	systems	\$26,627	\$1,065	15	210
Runoff Control	systems	\$7,058	\$282	15	69
Stream Protection	systems	\$1,000	\$40	10	6.79
Retirement HEL	acres	\$120	\$5	10	9.55
Buffers Forested	acres	\$1,000	\$40	25	27.28
Buffers Grassed	acres	\$140	\$6	10	16.92
Wetlands	acres	\$3,500	\$140	30	27.28
Tree Planting, Ag	acres	\$615	\$25	25	13.57
Precision Agriculture	acres	\$28	\$0	8	4.04
Horse Pasture Management	systems	\$4,317	\$173	15	11

- Key Deliverables 2009
  - DNR GIS Land Audit (Phase I)  
June 2009 (completed)
  - DNR Field Land Audit (Phase II)  
November 2009
  - Secure Funding for Milestone  
December 2009
  - Compliance
    - Modify Ag Lease Agreements  
Ongoing



- Land Audit Workgroup Targeting
  - Priority 1 Site Analysis
    - Buffers (100ft.)
    - Highly Erodible Lands
    - Hydric Soils
    - Gaps in Green Infrastructure



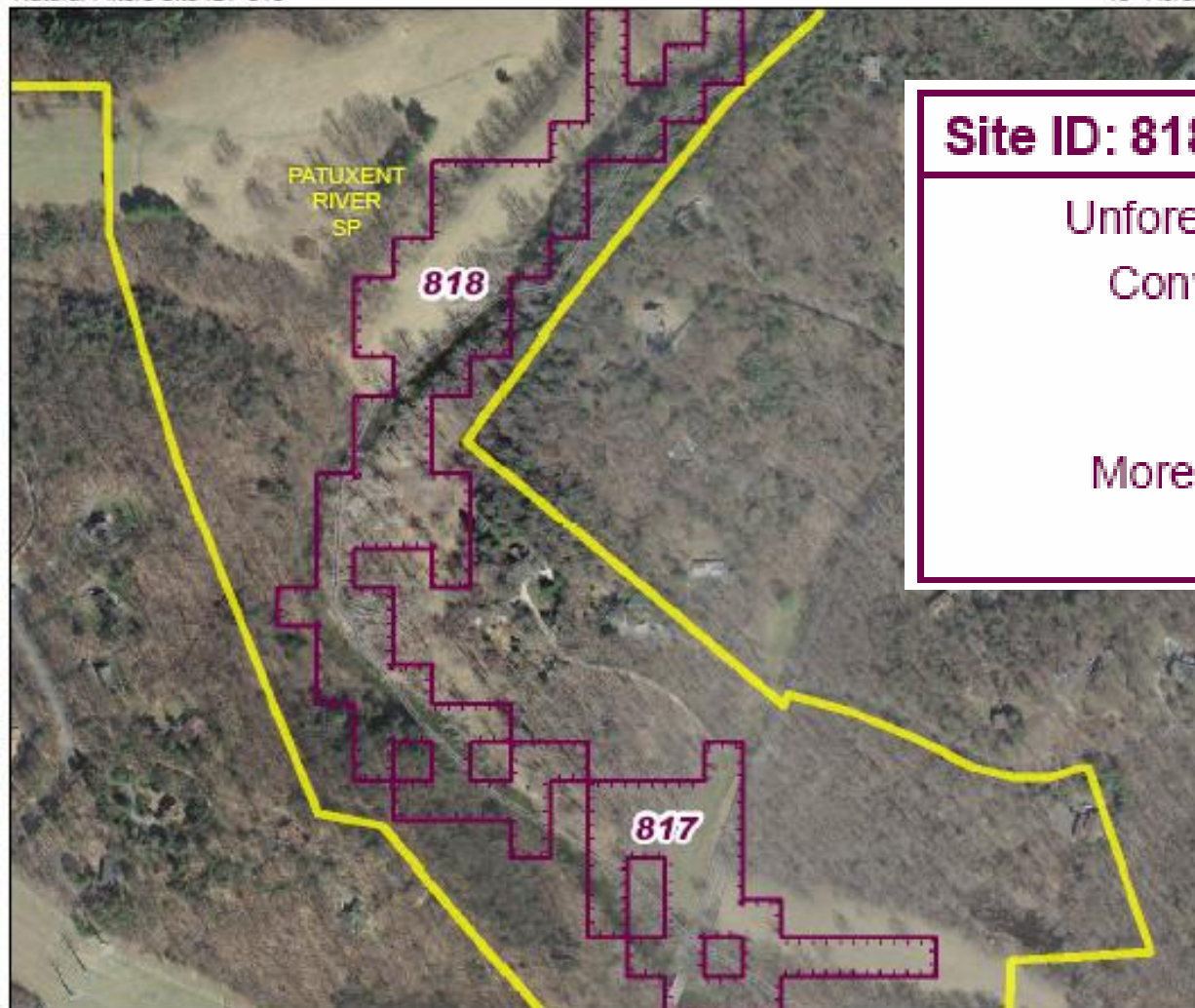


- Land Audit Workgroup Targeting
  - Priority 2 – Ag leases
    - Current Use – cropland, pasture
      - Compliance
      - Existing buffer requirements
      - Soil Class
    - Lease termination dates



Natural Filters Site ID: 818

15 Acres



## Site ID: 818

15 Total Acres

Unforested 100' buffer: 9.3 ac

Converted Wetland\*: 1.9 ac

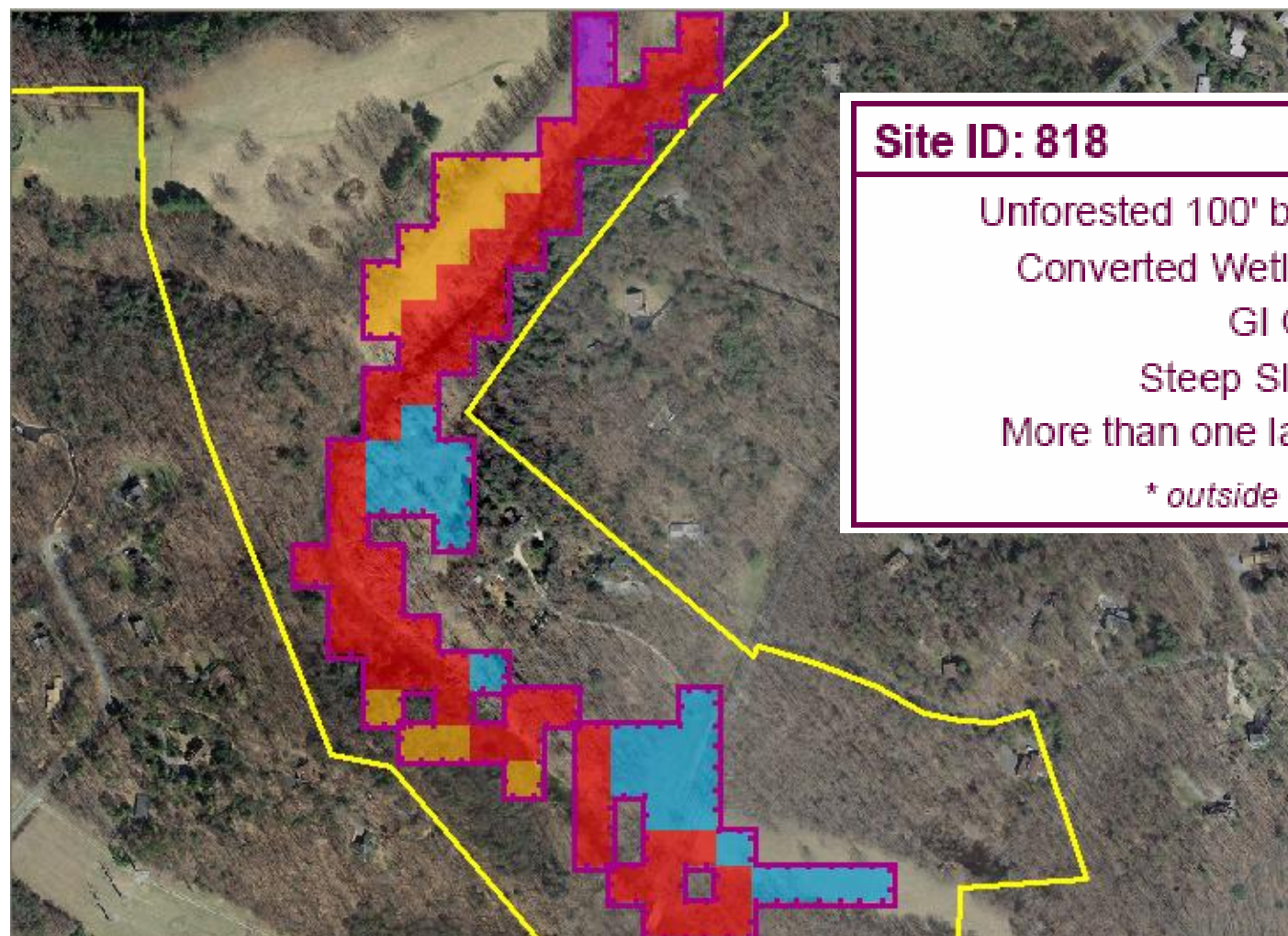
GI Gap\*: 0.4 ac

Steep Slope\*: 3 ac

More than one layer\*: 0 ac

*\* outside 100' buffer*





**Site ID: 818**

**15 Total Acres**

Unforested 100' buffer: 9.3 ac

Converted Wetland\*: 1.9 ac

GI Gap\*: 0.4 ac

Steep Slope\*: 3 ac

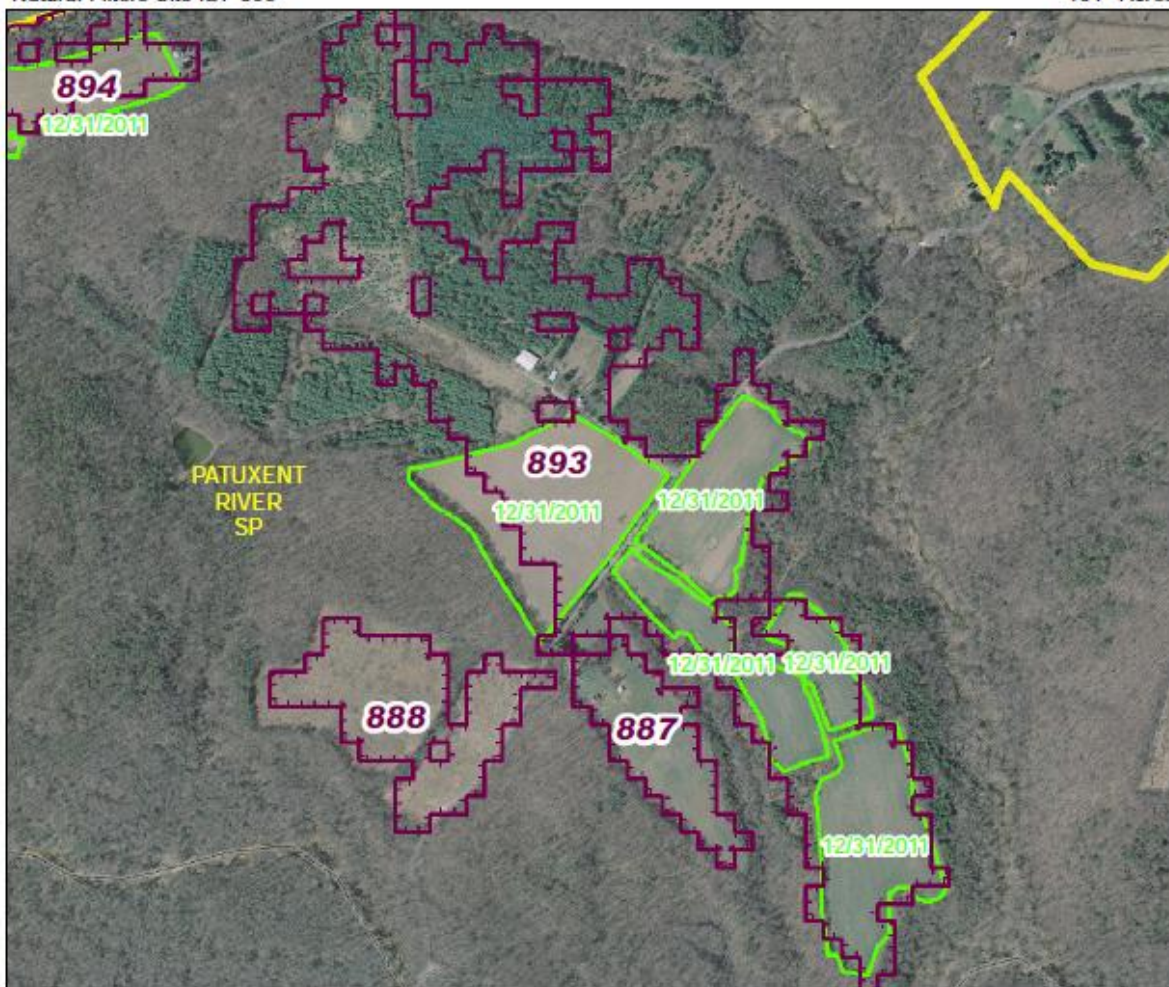
More than one layer\*: 0 ac

*\* outside 100' buffer*



Natural Filters Site ID: 893

131 Acres




Site ID: 893	131 Total Acres
Unforested 100' buffer:	0 ac
Converted Wetland*:	0 ac
GI Gap*:	131.2 ac
Steep Slope*:	0 ac
More than one layer*:	0 ac
* outside 100' buffer	




**Nat. Filters Potential Site**

 external DNR land unit boundary

 Forest Brigade Planting

 CREP Planting

 Crop Lease

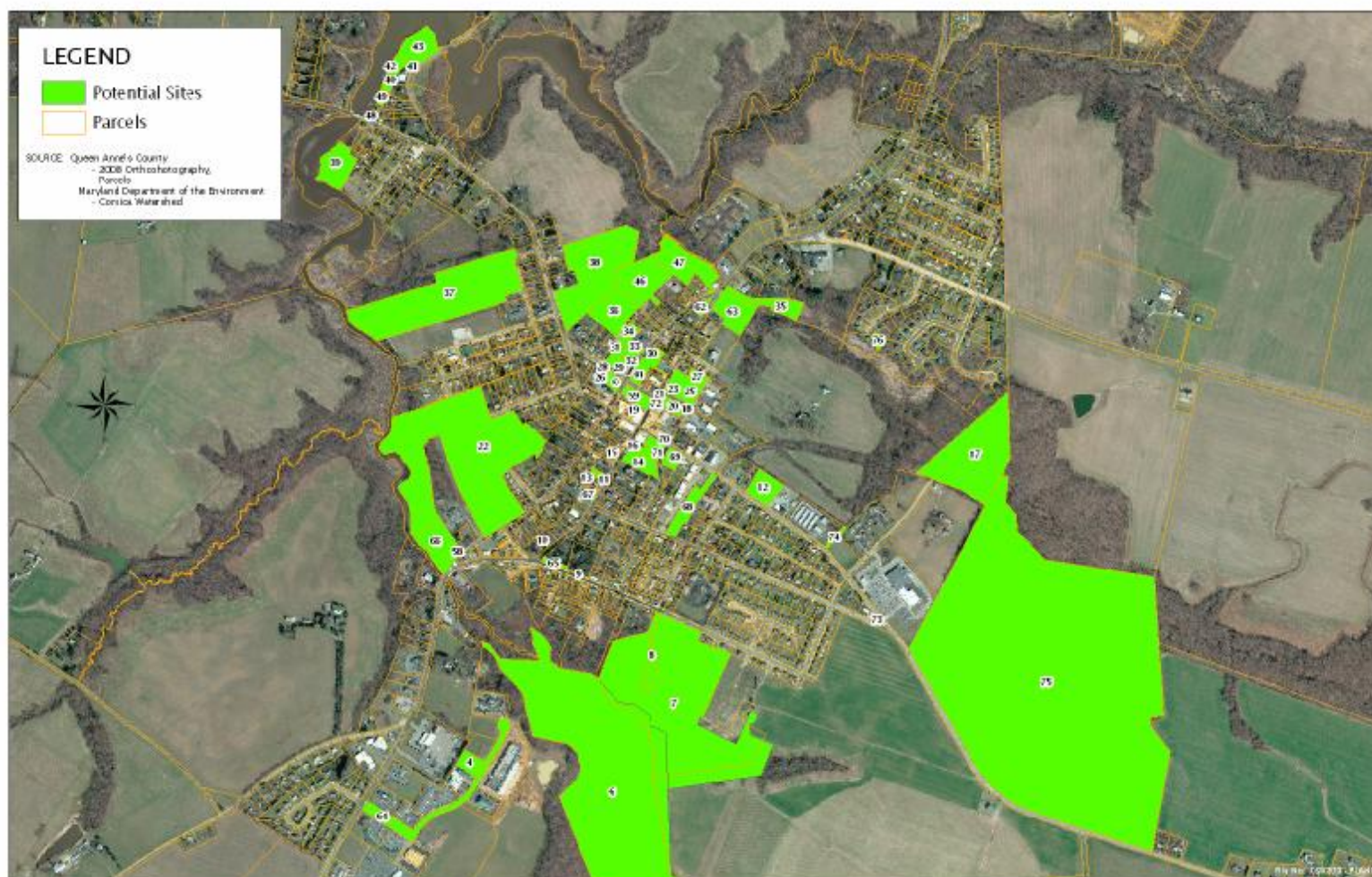
 Grazing Land

 Other Agreement

Label indicates  
end date of  
agreement









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